

University of Groningen

Hidradenitis suppurativa

Dickinson-Blok, Janine Louise

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2015

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Dickinson-Blok, J. L. (2015). *Hidradenitis suppurativa: From pathogenesis to emerging treatment options*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

HIDRADENITIS SUPPURATIVA

FROM PATHOGENESIS TO EMERGING
TREATMENT STRATEGIES

Janine Louise Dickinson-Blok

ISBN: 978-90-367-8142-8

ISBN: 978-90-367-8141-1 (e-version)

© 2015 by J.L. Dickinson-Blok, Groningen, The Netherlands

Financial support for the publication of this thesis was provided by:

AbbVie BV, ALK-Abelló BV, Almirall, Celgene BV, Fagron BV, Flen Pharma, Galderma Benelux BV, Janssen-Cilag BV, La Roche-Posay, Leo Pharma BV, Molnlycke Health Care, Rijksuniversiteit Groningen, Studiefonds Dermatologie, Universitair Medisch Centrum Groningen, Will Pharma.

Design and layout: Arjan Veening, Id Graficus, Assen, The Netherlands

Printing: GVO drukkers & vormgevers B.V., Ede, The Netherlands



rijksuniversiteit
 groningen

HIDRADENITIS SUPPURATIVA

FROM PATHOGENESIS TO EMERGING
TREATMENT STRATEGIES

PROEFSCHRIFT

ter verkrijging van de graad van doctor aan de
Rijksuniversiteit Groningen
op gezag van de
rector magnificus prof. dr. E. Sterken
en volgens besluit van het College voor Promoties.

De openbare verdediging zal plaatsvinden op

woensdag 30 september 2015 om 11.00 uur

door

Janine Louise Blok

geboren op 11 juli 1984

te Deventer

Promotor

Prof. dr. M.F. Jonkman

Copromotor

Dr. B. Horváth

Beoordelingscommissie

Prof. dr. B. van der Lei

Prof. dr. E.P. Prens

Prof. dr. G.B.E. Jemec

Paranimfen

Katarzyna Gostyńska

Ineke Janse

CONTENTS

	List of abbreviations	7
Chapter 1.	Introduction	9
Chapter 2.	Increased expression of integrin $\alpha 6\beta 4$ at the basement membrane zone lining the sebaceous glands in hidradenitis suppurativa	23
Chapter 3.	The possible association of hidradenitis suppurativa and Down syndrome: are impaired Notch signaling and immunological abnormalities the missing links?	37
Chapter 4.	Gene expression profiling in skin and blood in hidradenitis suppurativa	45
Chapter 5.	Systemic therapy with immunosuppressive agents and retinoids in hidradenitis suppurativa: a systematic review	51
Chapter 6.	Ustekinumab in hidradenitis suppurativa: a clinical open label study with analyses of the protein expression profile in serum	79
Chapter 7.	Skin-tissue-sparing excision with electrosurgical peeling (STEEP): a surgical treatment option for severe hidradenitis suppurativa Hurley stage II/III	97
Chapter 8.	Surgery under general anesthesia in severe hidradenitis suppurativa: a study of 363 primary operations in 113 patients	107
Chapter 9.	General discussion and future perspectives	125
Chapter 10.	Dutch summary / Nederlandse samenvatting	137
Appendices	List of publications Dankwoord Curriculum vitae	145

LIST OF ABBREVIATIONS

AE	adverse event
BMZ	basement membrane zone
DLQI	daily life quality index
FPSU	folliculopilosebaceous unit
HiSCR	hidradenitis suppurativa clinical response
HS	hidradenitis suppurativa
IF	immunofluorescence
IFE	interfollicular epidermis
IL	interleukine
m-HSLASI	modified hidradenitis suppurativa-lesion area and severity index
mSS	modified Sartorius scale
PAS	periodic acid–schiff
PGA	physician's global assessment
SFJ	sebofollicular junction
STEEP	skin tissue sparing excision with electrosurgical peeling
Th-cells	T-helper cells
TNF- α	tumor-necrosis-factor- α
VAS	visual analogue scale

